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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,278	12/19/2000	Doreen Yining Cheng	US008062	7097

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EXAMINER

QURESHI, SHABANA

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 05/25/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/742,278

Applicant(s)

CHENG, DOREEN YINING

Examiner

Shabana Qureshi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.3.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 12/19/00 and 7/29/02 was received. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-25 are rejected under 35 U.S.C. 102(e) as being anticipated by William Zintel et al (US 6,725,281).

As per claims 1, 12, and 20, Zintel et al teach a UPnP interface device that is configured to facilitate UPnP control of at least one non-UPnP device that are located on one or more slave networks using one or more different network technologies, comprising:

- an IP interface to at least one UPnP controller (column 5, lines 39-40), the UPnP controller being configured to issue a UPnP command in conformance with a UPnP protocol (column 4, lines 62-67),

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- at least one non-IP interface to the at least one non-UPnP device (column 4, lines 62-67, column 5, lines 50-61), and
- a processor that is configured to:
- receive the UPnP command, via the IP interface (column 4, lines 62-67, column 5, lines 50-61)
- transform the UPnP command into a device command, communicate the device command to a target device of the at least one non-UPnP device via the at least one non-IP interface (column 4, lines 62-67, column 5, lines 39 – column 6, line 19), and
- communicate a UPnP acknowledgement (column 1, line 65 – column 2, line 16, notification) of the UPnP command to the at least one UPnP controller, via the IP interface (column 4, lines 62-67, lines 39 – column 6, line 19).

As per claims 2 and 13, Zintel et al teach the device of claims 1 and 12, wherein the one or more network technologies include at least one of:

- a USB network, a bluetooth network, a HAVi-compatible network, an IEEE 1394 network, a Home API network (column 5, lines 60 – column 6, line 18), a HomeRF network, a Firefly network, a power line network, an X-10 network, and a Jini-compatible network.

As per claim 3, Zintel et al teach the device of claim 1, wherein:

- the UPnP controller is further configured to issue a UPnP request in conformance with the UPnP protocol (column 6, lines 48-65),
- the UPnP request includes one of: a description request, a presentation request, a subscription request, and a query (column 13, lines 10-40), and

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- the processor is configured to provide at least one of: a device description (column 13, lines 10-40), a service description (column 13, lines 10-40), a presentation page (column 13, lines 10-40), an event (column 13, lines 10-40), and a value of a variable (column 14, lines 37-40), in response to the UPnP request (column 13, lines 10-40).

As per claims 4, Zintel et al teach the device of claim 3, wherein

- the IP interface also provides access to a file server (column 2, lines 17-46), and
- the processor provides the at least one of: the device description (column 8, lines 22-32), a service description (column 8, lines 33-44), a presentation page (column 10, lines 41-54), an event (column 12, lines 33-39), and a value of a variable (column 14, lines 37-40), based on information received from the file server (column 13, lines 10-40).

As per claims 5 and 15, Zintel et al teach the device of claims 1 and 12, wherein the processor includes at least one of:

- a discovery module that is configured to provide an advertisement of the at least one non-UPnP device to the UPnP controller (column 9, line 36 – column 10, line 3),
- a description module that is configured to provide a description of functions of the at least one non-UPnP device to the UPnP controller, in response to a request from the UPnP controller (column 10, lines 19-35), and
- a presentation module that is configured to provide a presentation page that facilitates a control of the at least one non-UPnP device by a user (column 10, lines 41-52).

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As per claims 6 and 16, Zintel et al teach the device of claims 5 and 15, wherein

- at least one of the discovery module, the description module, and the presentation module is configured to provide the advertisement, the description, and the presentation page, respectively, for the at least one non-UPnP device of the slave networks (column 9, line 36 – column 10, line 3).

As per claims 7 and 17, Zintel et al teach the device of claims 1 and 12, wherein the processor includes at least one of:

- a service control module that communicates commands to the target device (column 9, lines 4-21; column 13, line 56 – column 14, line 67),
- an event subscription module that receives requests from the at least one UPnP controller to be notified of one or more changes of state of the target device (column 11, lines 7-34; column 13, lines 35-39), and
- an event source module that notifies the at least one UPnP controller of one or more changes of state of the target device (column 13, lines 38-39; column 11, lines 35-42).

As per claims 8 and 18, Zintel et al teach the device of claims 7 and 17, wherein

- the service control module maintains a service state table that reflects the state of the target device (column 2, lines 36-46; column 8, lines 53-67; column 16, lines 11-67), and
- the event source module notifies the at least one UPnP controller of the one or more changes of the state of the target device based on the service state table (column 2, lines 36-46; column 8, lines 53-67; column 16, lines 11-67).

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As per claims 9, 19, and 25, Zintel et al teach the device of claims 1 and 12, wherein the UPnP server enabler communicates the device command to the target command by modifying a data structure that is associated with a thread, and the thread effects the communication to the at least one non-UPnP device of the slave networks (column 14, line 48 – column 15, line 2).

As per claim 10, Zintel et al teach the device of claim 1, wherein

- the IP interface also provides access to a file server (column 2, lines 17-46), and
- the processor effects the transform of the UPnP command into the device commands based on information received from the file server (column 6, line 48 – column 7, line 52).

As per claim 11, Zintel et al teach the device of claim 1, wherein

- the processor is further configured to recognize a connection and disconnection of the at least one non-UPnP device, and initiates and terminates threads in response to each connection and disconnection, respectively (column 23, line 1 – column 24, line 37).

As per claim 12, Zintel et al teach a method for facilitating UPnP control of at least one non-UPnP device on a slave network, comprising:

- receiving device-dependent data corresponding to each of the at least one non-UPnP device from a file server,
- receiving a UPnP command in conformance with a UPnP protocol from a UPnP controller,
- transforming the UPnP command into a device command, based on the device-dependent data received from the file server,

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- communicating the device command to a target device of the at least one non-UPnP device on the slave network, and
- communicating a UPnP acknowledgement of the UPnP command to the UPnP controller.

As per claim 14, Zintel et al teach the method of claim 12, wherein:

- receiving a UPnP request in conformance with the UPnP protocol (column 6, lines 48-65),
- the UPnP request including one of: a description request, a presentation request, a subscription request, and a query (column 13, lines 10-40), and
- providing at least one of: a device description (column 13, lines 10-40), a service description (column 13, lines 10-40), a presentation page (column 13, lines 10-40), an event (column 13, lines 10-40), and a value of a variable (column 14, lines 37-40), in response to the UPnP request (column 13, lines 10-40), based on information received from a file server (column 13, lines 10-40).

As per claims 21, Zintel et al teach the device of claim 20, further including

- the file server on the IP sub-network(column 2, lines 17-46), and
- the UPnP enabling device that facilitates control of a device on the non-IP sub-network by a UPnP controller on the IP sub-network (column 13, lines 10-40).

As per claim 22, Zintel et al teach the network of claim 20, wherein the UPnP enabling device is configured to:

- receive the UPnP command, from the UPnP controller on the IP network (column 4, lines 62-67, column 5, lines 50-61)

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- transform the UPnP command into a device command (column 7, lines 10-14), and
- communicate the device command to the device on the non-IP sub-network (column 4, lines 62-67, column 5, lines 39 – column 6, line 19).

As per claim 23, Zintel et al teach the network of claim 22, wherein

- the UPnP enabling device is further configured to provide at least one of: a device description (column 13, lines 10-40), a service description (column 13, lines 10-40), a presentation page (column 13, lines 10-40), an event (column 13, lines 10-40), and a value of a variable (column 14, lines 37-40), corresponding to the device on the non-IP network, in response to a UPnP request from the UPnP controller (column 13, lines 10-40).

As per claim 24, Zintel et al teach the device of claim 23, further including

- a file server on the IP sub-network (column 2, lines 17-46), and wherein
- the UPnP enabling device provides at least one of: the device description (column 8, lines 22-32), a service description (column 8, lines 33-44), a presentation page (column 10, lines 41-54), the event (column 12, lines 33-39), and the value of a variable (column 14, lines 37-40), based on information received from the file server (column 13, lines 10-40).

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Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shabana Qureshi whose telephone number is (703) 308-6118. The examiner can normally be reached on Monday - Friday, 8:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (703) 308-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shabana Qureshi
Examiner
Art Unit 2155

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May 17, 2004


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SUPERVISORY PATENT EXAMINER